AMENDMENTS

In the Claims:

Please cancel claims 5 and 36 without prejudice, and amend claims 6, 8, 10, 15, 21, 23, 33, 35, 37 and 38 as follows:

6. (Twice Amended) The method of claim 33, wherein said tissue specific ligand is an anticancer agent.

8. (Twice Amended) The method of claim 33, wherein said tissue specific ligand is a tumor marker.

10. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is a folate receptor targeting ligand.

15. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is a tumor apoptotic cell targeting ligand or a tumor hypoxia targeting ligand.

21. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is glutamate pentapeptide.

23. (Twice Amended) The method of claim 33, wherein the tissue specific ligand is an agent that mimics glucose.

33. (Once Amended) A method of synthesizing a radiolabeled ethylenedicysteine derivative for imaging comprising the steps:

a) obtaining a tissue specific ligand, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose;

b) admixing said ligand with ethylenedicysteine (EC) to obtain an EC-tissue specific ligand derivative; and

c) admixing said EC-tissue specific ligand derivative with a radionuclide and a reducing agent to obtain a radionuclide labeled EC-tissue specific ligand derivative, wherein the EC forms an N_2S_2 chelate with the radionuclide.

35. (Once Amended) A method for labeling a tissue specific ligand for imaging, comprising the steps:

a) obtaining a tissue specific ligand, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose;

b) admixing the tissue specific ligand with ethylenedicysteine (EC) to obtain an EC-ligand drug conjugate; and

c) reacting the drug conjugate with ^{99m}Tc in the presence of a reducing agent to form an N_2S_2 chelate between the ethylenedicysteine (with or without linker) and the ^{99m}Tc.

37. The method of claim 35, wherein the reducing agent is a dithionite ion, a stannous ion or a ferrous ion.

38. (Once Amended) A method of imaging a site within a mammalian body comprising the steps of administering an effective diagnostic amount of a composition comprising a 99mTc labeled ethylenedicysteine-tissue specific ligand conjugate and detecting a radioactive signal from the ^{99m}Tc localized at the site, wherein the tissue specific ligand is an anticancer agent, a tumor marker, a folate receptor targeting ligand, a tumor apoptotic cell targeting ligand, a tumor hypoxia targeting ligand, glutamate pentapeptide, or an agent that mimics glucose.